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EXAMINER
ESTRADA, ANGEL R

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/904,747	WIDMAN, JAY E.	
	Examiner	Art Unit	
	Angel R. Estrada	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 April 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claim 19 is objected to because of the following informalities:

Claim 19 line 1 change "An apparatus for sealing a conduit" for --A sealed conduit system--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Griffioen (US 5,971,035).

Regarding claim 1, Griffioen discloses a sealed conduit system (see figure 1) comprising: conduit (1) having at least one end (see figure 1); a housing (4) having an inner chamber and an outer surface (see figure 1); at least one free running hub (5) coupled to said housing (4) and the at end of said conduit (1); and a flexible membrane (6) disposed within said at least one free running hub (5).

Regarding claim 5, Griffioen discloses the sealed conduit system (see figure 1), wherein the housing (4) is defined by a mid-section, which is substantially cylindrically shaped (see figure 1), and two free running hub (5) is disposed on, and mounted to, opposite end of the mid-section (see figure 1).

Regarding claim 12, Griffioen discloses the sealed conduit system (see figure 1) wherein the flexible membrane (6) is a generally disk shaped flexible membrane (see figure 1) formed of neoprene (column 4 lines 57).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Cameron (US 5,560,655).

Regarding claim 2, Griffioen discloses the claim invention except for the sealing conduit system comprising means for purging any air, other gases or moisture, which may be trapped within the inner chamber of said housing. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) capable of purging any air, gases or moisture which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to Griffioen's housing with means that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit and also to provide means that permits the insertion of insulated materials inside the conduit.

Regarding claim 3, Cameron teaches the purging means (11) comprise a threaded port (40) formed in the housing (12) and a threaded plug (11), which is adapted to mate with said threaded port (see figure 1 and 3).

Regarding claim 4, Cameron teaches the purging means (11) being a spring-loaded ball-type valve (see figure 4).

4. Claims 6-8, 15, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Hutchison (US 4,301,325).

Regarding claim 6, Griffioen discloses the sealed conduit system (see figure 1) wherein the free running hubs are partially conical in shape (see figure 1) with an inside surface; but Griffioen lacks an inside surface having a first set of female threads formed thereon for mating with the ends of the conduit. Hutchison teaches a sealing conduit system comprising a conduit (2) having at least one end, a free running hub (4) having an inside surface which has a first set of female threads (see figure 1) formed thereon for mating with the end of the conduit (2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Griffioen's hubs inside surface with a first set of female threads as taught by Hutchison to provide means to firmly secure the conduits to the hubs.

Regarding claim 7, Griffioen discloses the sealed conduit system (see figure 1) wherein the inside surface of the free running hubs (5) has a second set of female threads (see figure 1) formed thereon for mating with the ends of the cylindrically-

shaped mid-section (4) and a shoulder adjacent to the second set of female threads (see figure 2).

Regarding claim 8, Griffioen discloses the sealed conduit system (see figure 1) wherein flexible membrane (6) disposed on the inside surface of each of the free running hubs (5) adjacent to the shoulder (see figure 1 and 2).

Regarding claim 15, Griffioen discloses the sealed conduit system (see figure 1) comprising a conduit (1) having at least one end, housing (4) having an inner chamber and an outer surface (see figure 1); at least one free running hub (5) having an inner surface and a coupling (see figure 5), wherein the coupling comprises a set of female threads (see figure 1) formed on said inner surface for mating with the ends of the housing (4); and a flexible membrane (6) disposed within said at least one free running hub (see figure 1); but Griffioen lacks a set of female threads formed on said inner surface of the hub for mating with the at least one end of the conduit. Hutchison teaches a sealing conduit system comprising (see figure 1) comprising a conduit (2), a housing (11) having at least one end, and at least one free running hub (4) comprising a first and second set coupling (see figure 1), wherein the first coupling comprises a first set female threads formed on said inner surface for mating the ends of the conduit (see figure 1) and a second set female threads formed on said inner surface for mating with the end of the housing (see figure 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Griffioen's hubs inside surface with a first set female threads as taught by Hutchison to provide means to firmly secure the conduits to the hubs.

Regarding claim 17, Griffioen discloses the sealed conduit system (see figure 1) wherein the housing (4) is defined by a mid section, which is substantially cylindrically shaped (see figure 1), and two free running hubs (5) are disposed on, and mounted to opposite ends of the mid-section (see figure 1).

Regarding claim 18, Griffioen discloses the sealed conduit system (see figure 1) wherein flexible membrane (6) disposed to a shoulder formed in the inner surface of the at least one free running hub proximate said second coupling (see figure 1).

Regarding claim 20, Griffioen discloses the sealed conduit system (see figure 1) wherein the flexible membrane (6) is a generally disk shaped flexible membrane (see figure 1) formed of neoprene (column 4 line 57) and has at least one opening for accommodating one or more cables adjacent to a shoulder (see figure 1 and 2).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Bertini et al (US 6,489,554).

Regarding claim 11, Griffioen discloses the claimed invention except for the housing being formed of an aluminum alloy. Beritini et al disclose a sealed conduit system (see figure 3c) comprising a housing (420) formed of an aluminum alloy (column 7 line 10-15). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make Griffioen 's housing of an aluminum alloy as taught by Bertini et al to provide a housing with good conductive and strength properties.

6. Claims 9, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Klein (US 4,456,784).

Regarding claim 9, Griffioen discloses the claimed invention except for said apparatus comprising a polyurethane-based epoxy sealant compound disposed within said inner chamber. Klein teaches a sealing conduit system (19) comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of ordinary skill in the art at the time the invention was made to fill Griffioen's inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to improve the sealing of the conduit by providing a barrier against the flow of vapor through the sealing conduit system.

Regarding claim 10, Klein teaches that said polyurethane-based epoxy sealant compound (6) comprises a polymer and a monomer (column 3 line 9-38).

Regarding claim 13, Griffioen discloses a method of sealing a conduit (1) comprising the steps of coupling a sealing apparatus (see figure 1) comprising a housing (4) having an inner chamber and an outer surface, at least one free running hub (5) having an inner surface and a flexible membrane (6) disposed within the at least one free running hub (5) to at least one end of the conduit (see figure 1); threading any wires or cables (see figure 2) contained within said conduit (1) through said flexible membrane (6); but Griffioen lacks the step of filling the inner chamber with a polyurethane-based epoxy sealant compound. Klein teaches an apparatus (19) for sealing a conduit (3), comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of

ordinary skill in the art at the time the invention made to fill Griffioen's inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to improve the sealing of the conduit by providing a barrier against the flow of vapor through the apparatus.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Klein (US 4,456,784) as applied in claim 13 and further in view of Cameron (US 5,560,655).

Regarding claim 14, the modified Griffioen discloses the claimed invention except for the step of releasing any air, other gases, or moisture, which may be trapped in the inner chamber after it is filled with the epoxy sealant compound, through a purging means. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) for purging any air, gases or moisture, which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Griffioen's housing with a mean that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit and also to provide means that permits the insertion of insulated materials inside the conduit.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Hutchison (US 4,301,325) as applied in claim 15, and further in view of Cameron (US 5,560,655).

Regarding claim 16 the modified Griffioen (US 5,971,035) discloses the claimed invention except for the step of releasing any air, other gases, or moisture, which may be trapped in the inner chamber after it is filled with the epoxy sealant compound, through a purging means. Cameron teaches a housing for electrical conduits (18, 20) that includes means (11) for purging any air, gases or moisture, which may be trapped within the inner chamber of said housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide to the modified Griffioen's housing with a mean that can purge any air or moisture trapped within the inner chamber of said housing as taught by Cameron to improve the sealing of the conduit and also to provide means that permits the insertion of insulated materials inside the conduit.

9. Claim 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Griffioen (US 5,971,035) in view of Hutchison (US 4,301,325) as applied in claim 15 and further in view of Klein (US 4,456,784).

Regarding claim 19, the modified Griffioen discloses the claimed invention except for said sealing conduit system comprising a polyurethane-based epoxy sealant compound disposed within said inner chamber. Klein teaches an sealing conduit system (19) comprising a housing having an inner chamber (see figure 3) filled with polyurethane-based epoxy sealant compound (6). It would have been obvious to of ordinary skill in the art at the time the invention was made to fill Griffioen's inner chamber with a polyurethane-based epoxy sealant compound as taught by Klein to

improve the sealing of the conduit by providing a barrier against the flow of vapor through the apparatus.

Response to Arguments

10. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nava (US 3,607,604), Paul (US 3,585,273), Stagnitti (US 5,466,890) and Simmons et al (US 5,452,748) disclose a sealing conduit system.

12. Any inquiry concerning this communication should be directed to Angel R. Estrada at telephone number (703) 305-0853. The Examiner can normally be reached on Monday-Friday (8:30 -5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-1341 for after final communication.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

May 7, 2003

Dean A. Reichard 5/13/03

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